

Utah Influenza Report

This report contains data through the week ending 01/05/2013 (MMWR week 01).

Overview of Influenza Surveillance: Surveillance for the 2012-2013 influenza season officially began on September 30, 2012. The Utah Department of Health publishes a weekly report throughout the active influenza season that synthesizes data from a variety of sources to give the most complete and up-to-date picture of influenza activity in the state of Utah. Data in this report should be considered provisional, and may change as more complete reports are received.

Influenza-like Illness (ILI): The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) is a national system that conducts surveillance for influenza-like illness (ILI) in outpatient healthcare facilities. ILINet providers report weekly the total number of patients seen for any reason and the number of patients seen with ILI (defined as a fever $\geq 100^{\circ}$ F and a cough or sore throat). These data are used to determine the amount of ILI circulating in the community, as well as provide insight into regional differences in ILI activity. Currently, more than 50 facilities throughout Utah participate in ILINet.

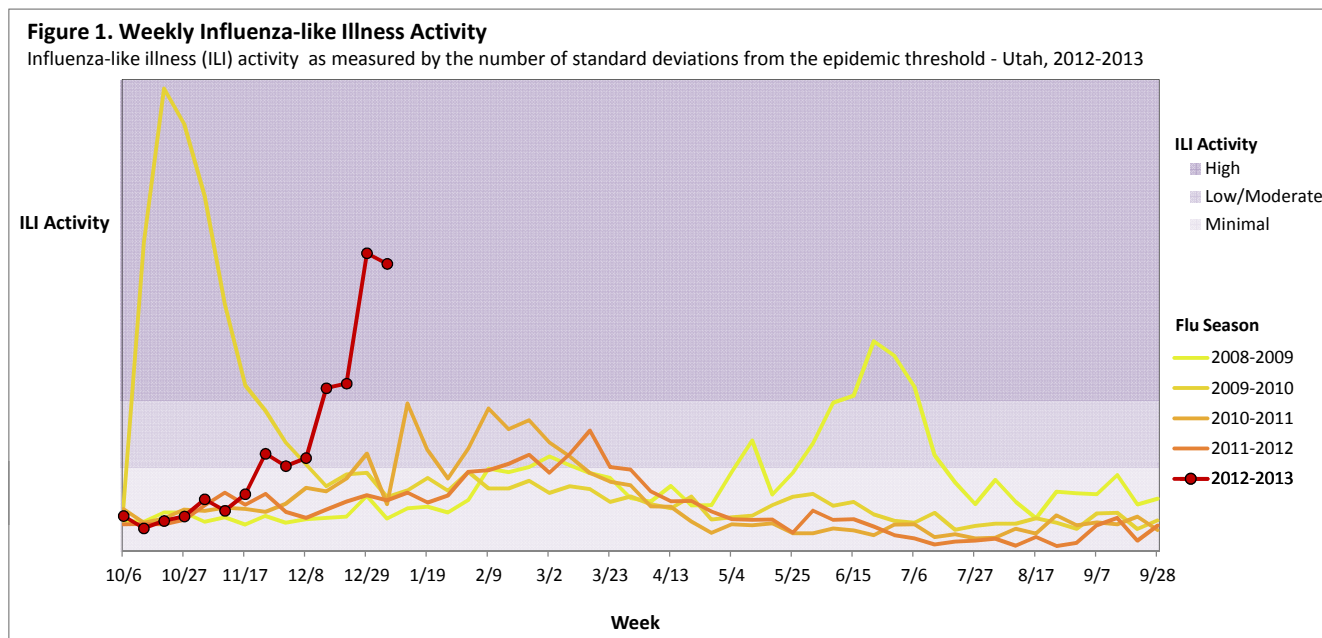


Table 1. Influenza-like Illness (ILI) Activity Levels by Health District - Utah, Current Week

Health District	ILI Activity
Bear River	High
Central	Low/Moderate
Davis	High
Salt Lake	High
Southeastern	No Data
Southwest	High
Summit	Minimal
Tooele	Minimal
TriCounty	No Data
Utah	High
Wasatch	Low/Moderate
Weber-Morgan	Low/Moderate
State	High

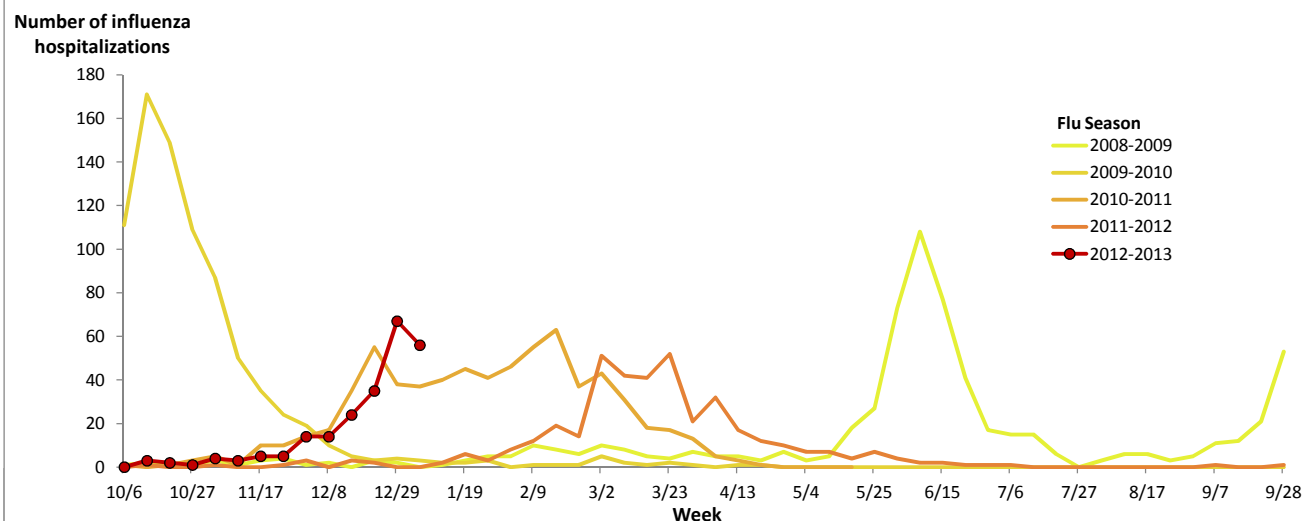
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Influenza Hospitalizations: Influenza hospitalizations are a reportable condition in Utah. A person meets the case definition for an influenza hospitalization if they are hospitalized for any length of time and have an influenza positive serology, DFA, PCR, or culture test (confirmed case) or a positive rapid influenza diagnostic test (probable case). Public health in Utah gathers a variety of data on influenza hospitalizations including clinical features, course of illness, risk and protective factors, and influenza type and subtype. Data from influenza hospitalizations allows public health in Utah to better understand subgroups of the Utah population that are most severely effected by influenza and help to guide prevention messages and interventions.

Figure 2. Influenza Hospitalizations

Number of influenza hospitalizations by event date* - Utah, 2012-2013



*Event date is calculated based on a hierarchy of dates: 1. onset date 2. specimen collection date 3. date reported to public health.

Table 2. Influenza Hospitalizations by Case Status - Utah

Case Status	Current Week		Season To Date	
	Total	% of Cases	Total	% of Cases
Confirmed	48	85.7	212	91.0
Probable	8	14.3	21	9.0
Total	56	100.0	233	100.0

Table 3. Influenza Hospitalizations by Health District - Utah

Health District	Current Week	Season To Date
Bear River	0	12
Central	3	8
Davis	3	25
Salt Lake	39	117
Southeastern	0	0
Southwest	9	37
Summit	0	3
Tooele	0	1
TriCounty	0	5
Utah	2	17
Wasatch	0	1
Weber-Morgan	0	7
State	56	233

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Table 4. Influenza Hospitalizations by Age Group - Utah, Season To Date

Age Group	Total Cases	% of Cases	Rate*
0-4	45	19.3	16.63
5-24	43	18.5	4.54
25-49	31	13.3	3.13
50-64	31	13.3	7.74
65+	83	35.6	33.60
Total	233	100.0	8.16

*Rate is calculated as the number of cases per 100,000 population

Table 5. Influenza Hospitalizations by Sex and Race - Utah, Season To Date

Variable	Num. of Cases	% of Cases	% in Utah Pop	p value*
Sex				
Male	112	48.1	50.3	0.4953
Female	121	51.9	49.7	0.4953
Unknown	0	0.0	NA	--
Race				
White, Not Hispanic	198	85.0	82.0	0.2425
Hispanic	26	11.2	11.6	0.8381
Native Hawaiian/Pacific Islander	1	0.4	0.7	0.6447
Black/African American	2	0.9	0.9	0.9060
American Indian	0	0.0	1.1	0.1024
Asian	6	2.6	1.9	0.4261
Unknown	0	0.0	NA	--

*If a p value is ≤ 0.05 , there is a significant difference between the percentage seen in influenza hospitalizations and the general Utah population.

Table 6. Summary Data for Influenza Hospitalizations - Utah, Season To Date

Variable	Yes		No		Unknown	
	Total	% of Cases	Total	% of Cases	Total	% of Cases
ICU	13	5.6	103	44.2	117	50.2
Ventilator	7	3.0	109	46.8	117	50.2
Died	0	0.0	123	52.8	110	47.2
Neurological Symptoms	9	3.9	103	44.2	121	51.9
Healthcare Worker	1	0.4	59	25.3	173	74.2
Pregnant	5	2.1	178	76.4	50	21.5
Heart Disorder	38	16.3	79	33.9	116	49.8
Blood Disorder	5	2.1	113	48.5	115	49.4
Kidney Disorder	12	5.2	106	45.5	115	49.4
Metabolic Disorder	19	8.2	99	42.5	115	49.4
Chronic Respiratory Disorder	44	18.9	74	31.8	115	49.4
Immunosuppressed	16	6.9	101	43.3	116	49.8
Neurological Disorder	9	3.9	103	44.2	121	51.9
Seizure Disorder	2	0.9	116	49.8	115	49.4
Bacterial Co-infection	1	0.4	113	48.5	119	51.1
Obese*	18	11.8	46	30.3	88	57.9
Morbidly Obese*	5	3.3	59	38.8	88	57.9
Risk Factor†	222	95.3	11	4.7	0	0.0
Vaccinated	45	19.3	51	21.9	137	58.8

*Obesity and morbid obesity is not considered for individuals under 18 years or pregnant women. Thus total counts will not equal the total number of influenza-associated hospitalizations

†Risk factors for influenza include: persons < 5 years, persons ≥ 65 years, pregnant women, and persons with a chronic medical condition.

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Student Absenteeism: School-age children are at high risk for respiratory virus infections, including influenza. Aggregate, all-cause absenteeism data is collected weekly from over 350 schools throughout Utah. These data are analyzed to identify elevated absenteeism rates that could indicate the circulation of influenza in school-age children.

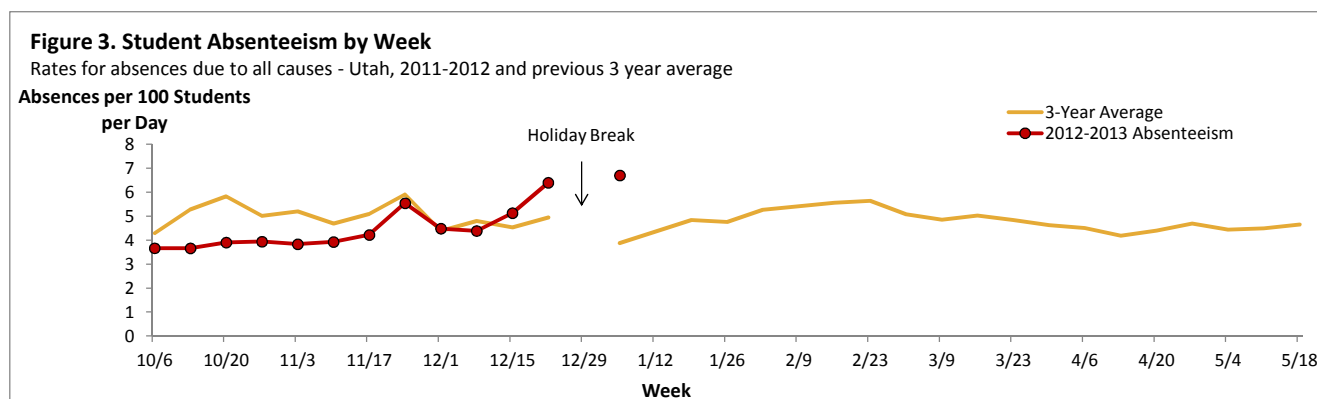
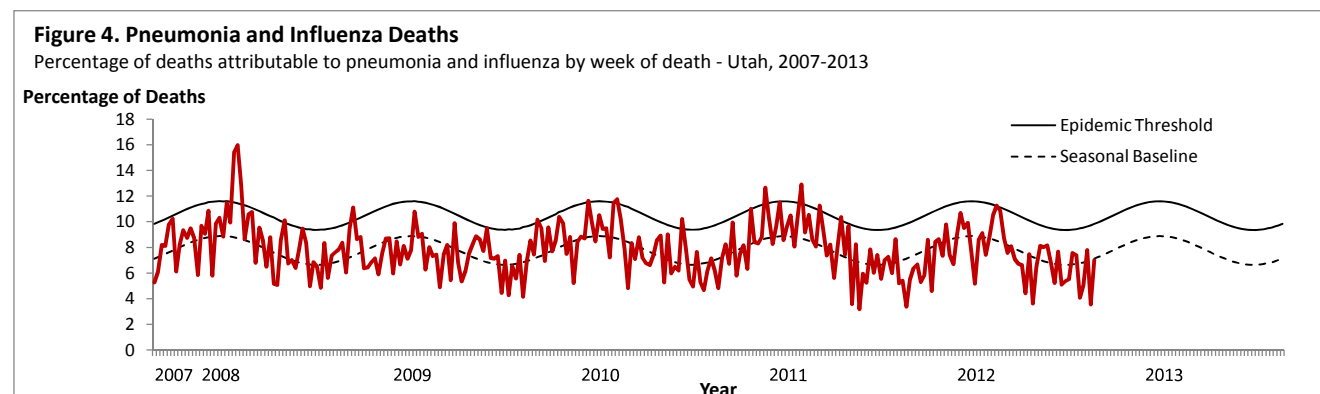


Table 7. Weekly Student Absenteeism - Utah, Current Week

Health District	Absences per 100 students/day
Bear River	--
Central	--
Davis	6.7
Salt Lake	--
Southeast	--
Southwest	--
Summit	--
Tooele	--
TriCounty	--
Utah	--
Wasatch	--
Weber-Morgan	--
State	6.7

Pneumonia and Influenza Deaths: Each week the total number of death certificates received and the number of those for which pneumonia or influenza was listed as an underlying or contributing cause of death is collected. The percentage of deaths due to pneumonia and influenza are compared with a seasonal baseline and epidemic threshold value calculated for each week. These data are used to monitor the severity of influenza illness in the community.



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Laboratory Surveillance: The Unified State Laboratory: Public Health receives specimens from all over the state for comprehensive influenza testing. All specimens are tested to determine influenza type and subtype. A portion of specimens are also sent to the Centers for Disease Control and Prevention for additional testing, including gene sequencing, antiviral resistance testing and antigenic characterization.

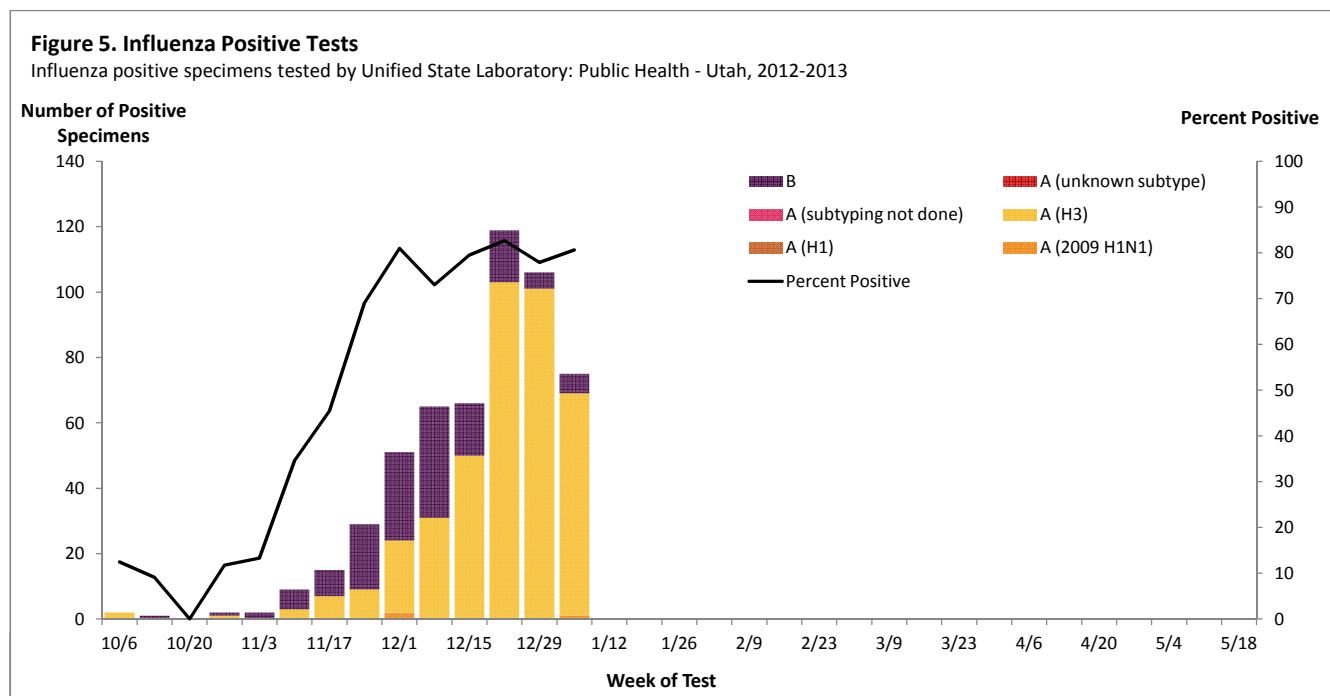


Table 8. Unified State Laboratory: Public Health Influenza Testing Data

	Current Week		Season To Date	
	Total	Percent	Total	Percent
Specimens tested	93	--	777	--
Positive specimens	75	80.6	542	69.8
Positive Specimens by Type/Subtype				
Influenza A	69	92.0	400	73.8
A (2009 H1N1)	1	1.4	3	0.8
A (H1)	0	0.0	0	0.0
A (H3)	68	98.6	397	99.3
A (subtyping not performed)	0	0.0	0	0.0
A (unable to subtype)	0	0.0	0	0.0
Influenza B	6	8.0	142	26.2